

Claims

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1. Branched polymer, characterised in that it is derived from the following mixture of monomers:
- 5 (A) 50 to 93 wt.% of at least one ethylenically unsaturated monomer,
- (B) 2 to 25 wt.% of at least one ethylenically unsaturated macromonomer with a molecular weight of 1,000 to 20,000 and
- 10 (C) 5 to 25 wt.% of at least one polymerisable imidazole derivative,
- wherein components (A), (B) and (C) together make up 100 wt.%, the polymer possesses a molecular weight of 15,000 to 100,000 and is optionally present in the form of a salt.
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2. Branched polymer according to claim 1, wherein component (B) is present in a quantity of 5 to 15 wt.% and component (C) in a quantity of 10 to 20 wt.%.
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3. Branched polymer according to one or more of claims 1 and 2, wherein the molecular weight of the polymer is 25,000 to 75,000, preferably 30,000 to 50,000.
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4. Branched polymer according to one or more of claims 1 to 3, wherein component (A) is optionally a hydroxyalkyl or an alkyl polyalkylene glycol acrylate or methacrylate, a styrene or derivative thereof or a vinyl ether and component (B) is a poly(meth)acrylate with terminal (meth)acrylic function or a monovinyl-terminated polydimethylsiloxane and component (C) is N-vinylimidazole.
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5. Branched polymer according to one or more of claims 1 to 4, wherein this is present as a salt of a fatty acid, a hydroxycarboxylic acid, a sulfonic acid, a sulfate, an acidic phosphate or an inorganic acid.

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6. Process for the production of a branched polymer, characterised in that

(A) 50 to 93 wt.% of at least one ethylenically unsaturated monomer,

10 (B) 2 to 25 wt.% of at least one ethylenically unsaturated macromonomer with a molecular weight of 1,000 to 20,000 and

(C) 5 to 25 wt.% of at least one polymerisable imidazole derivative

15 are polymerised by free-radical polymerisation in the presence of an organic solvent and at least one radical initiator, at a temperature of 50 to 180°C, and the polymer thus obtained is optionally converted to its salt.

20 7. Process according to claim 6, characterised in that the organic solvent is an ester and the radical initiator is a peroxide or an azo compound.

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25 8. Process according to one or more of claims 6 and 7, characterised in that the reaction temperature is 90 to 150°C.

30 9. Use of the polymers from one or more of claims 1 to 5 as dispersing agents for the production of paints and/or pastes and/or moulding compositions containing pigments and/or fillers, optionally in combination with binders.

10. Use of the polymers from one or more of claims 1 to 5
for the coating of powdered or fibrous solids.

5 11. Use according to one or more of claims 9 and 10,
characterised in that the branched polymer is used in
a quantity of 0.5 to 100 wt.%, based on the solid to
be dispersed.

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